

FINAL THESIS ACCEPTANCE RECORD SHEET

Integrated vs. Traditional Classrooms:

Which is Better?

Dawn S. Boulac

Integrated vs. Traditional Classrooms: Which is Better?

Accepted by the Graduate Faculty, Indiana University, in partial fulfillment of the requirements for the degree of Master of Arts.

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A master's thesis submitted to the

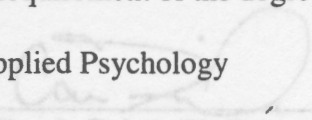
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relations: **Integrated vs. Traditional Classrooms:** work to the future.

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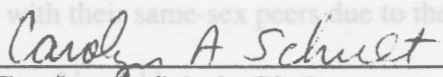
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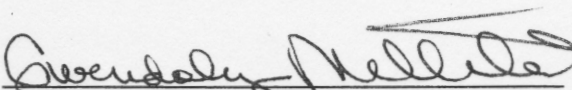
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Abstract

This study examines the relationship between student self-efficacy, student relationship with peers in the classroom, and perceived relevance of coursework to the future. The study looks at the differences between 78 9th and 10th grade students enrolled in classes held in the traditional classroom setting and students enrolled in an Integrated Studies program. Findings indicate that there was no difference between how Integrated Studies subjects and traditional classroom subjects reported relationships with their peers or how they perceived the relationship between coursework and the future. This study did find that girls perceived more positively than boys same-sex relationships, their verbal ability, and their general school ability. Implications from this study are that high school males and females in their first two years have different relationships with their same-sex peers due to the developmental differences in how each sex forms a friendship.

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Integrated Vs. Traditional: Which is Better?

If a developmental psychologist were to study a traditional classroom in a high school for a nine-week grading period, he/she would observe lecture-format instruction. Students would be given tests and quizzes over covered material, homework over lectures, and discussions over the material presented. If the teacher were “innovative”, the psychologist might observe partners working together on assigned material. Or perhaps, papers or presentations are given that are related to work required by the class syllabus. The papers and presentations might be assigned individually or to groups of students. These items may be thought to encourage student learning, but in some cases real world relevance would not be evident; therefore, for some students the projects would simply be viewed as mandatory to get a good grade. Schools tend to fragment learning into meaningless parts. This fragmentation contributes to students not understanding how their current learning relates to future coursework, college, and the workplace (Williams, 1991). Most students want to do well so they will do what is required even though they may not be able to relate the work to themselves or their overall learning experience. This should cause some concern due to the fact that many students are field dependent learners, where they need cues in order to successfully solve problems (Shade, 1985), but most teachers give broad topics so as not to stifle creativity. Field dependency means that students cannot relate topics from one class (math for example) to topics covered in another class (perhaps science). So, by teachers giving broad topics, they are actually causing students to feel as though they do not know the material because they do not see curriculum connections on their own. Shaw (1982, cited

in Sizer, 1985) has shown how little students are engaged in high school. Shaw asked them, "What do you do in school that makes you feel you accomplished something?" The findings quoted in Sizer (1985) are disturbing.

Even when given three chances to answer the question, fully one out of five students was unable to think of anything he or she does while in school that generates a feeling of accomplishment. In all, over half the students (52%) could think of nothing related to the school curriculum that gave them a sense of accomplishment. Rather, what sense of accomplishment they did earn in school came from sports and other extra-curricular activities (20%), socializing with friends (11%), or...nothing at all (21%) (Shaw, 1982, cited in Sizer, 1985).

For educators this should be discouraging. Teachers in the traditional classroom who strive to vary the presentation of material and student assessment of learning by including projects and/or papers may not be accomplishing their own goals. Evidence has shown that students' perceptions of course requirements as well as their own motivation and performance stem from the belief that the learning of material is relevant to them (Keltikangas-Jarvinen, 1992; Pintrich & De Groot, 1990). If a class can show relevance (attachment to the real world or an increased knowledge of material not normally covered), students are more cognitively engaged in the mastery of the material and find the tasks interesting and important (Beane, 1993; Pintrich & De Groot, 1990).

Self-efficacy

Schools should strive to have the curriculum incorporate the relevance of real life situations to a student's future. If this is done, success in high school, college, and the workplace will be more meaningful for the student. True student learning should be an

active process (Paris & Newman, 1990). This can be done more if courses have students deal with real objects, real problems, and real people instead of contrived circumstances (Williams, 1991). By increasing students' engagement in courses they are involved in, schools will also increase their students' self-concept (Johnson, Johnson, & Scott, 1978; Pajares, 1996; Pintrich & De Groot, 1990). *Self-efficacy (self-concept) expectations* are beliefs about one's ability to successfully perform a task and how much effort one should expend to complete a task (Bandura, 1977, 1982). If a student's self-concept can be strengthened, educators may lessen the "student's mental costs" that are needed for task involvement, persistence, mastery, and higher order thinking skills so the self-concept successes of the lower student can more easily be attained (Paris & Newman, 1990). For students with lower self-concept, the mental costs of inadequacy, failure to do what is asked, and feeling that they are more stupid than their peers can cause them not to even perform a given task. Failure by choosing not to do something is not as detrimental as failure when they actually attempt to perform the task.

In most classes, the average student can do well on tests, quizzes, papers, and projects but if asked to relate the information covered to another class in their schedule they are at a loss. The majority of students can not see that topics learned, for example, in a mathematics course, can be applied to their science course.¹ Students, for the most part, perceive their self-efficacy to be content specific. They actively go through a selection process by which they order activities according to the significance that that activity has on their self-concept (Alsaker, 1989; Faunce, 1984). Few say, "I can do well in future courses because of my completed course background." Instead, most students will say, "I do not do well in math but..." or "I do not like English because..." (Marsh, 1990). Not

only are student self-concepts related to course content, but they are also related to the type of teaching style of the instructor. Students say they have more difficulty when they have a different learning style than the instructor (Shade, 1983). Lent, Brown, and Larkin (1984) found that the level and strength of self-efficacy for educational requirements were generally related to academic outcomes; therefore, teachers should try to help students to perceive their self-concepts positively instead of negatively.

Since academic outcomes are related to students' perception of their self-concept (Alasker, 1989; Carroll, Durkin, Hattie, & Houghton, 1997; Hayamizu, Ito, & Yoshizaki, 1989; Keltikangas-Jarvinen, 1992), it would make sense for teachers and schools to reinforce positive experiences throughout the students' academic careers. This is because students who learn for themselves have an increased school achievement, whereas students who learn to please others have a decrease in learning achievement (Hayamizu et al., 1989). Research has also shown that students develop separate verbal and math self-concepts by the 5th grade because of their growing ability to distinguish their competence on different academic tasks (Bickel & Chang, 1986; Marsh, 1986, 1990). Because personal successes substantiate this sense of self-concept whereas failures lower it (Keltikangas-Jarvinen, 1992), teachers should be aware that just modeling the procedure through examples and note-taking may not give students the reassurance that they will also be able to perform the required task. Student observations of successful teacher modeling do not guarantee a student's self-efficacy for a skill. At the extreme, students who have had past difficulty with a particular concept may see the teacher as vastly superior in knowledge and, therefore, will not even attempt mastering a particular concept. In a study performed by Schunk and Hanson (1985), it was found that when a

student modeled topics covered in the lectures to other students of the same sex and age, the learning of the modeler increased, which can promote the self-concept of the modeling student for learning these skills. This means that by showing other students examples that are similar to the ones the teacher covered, students get immediate feedback on their own understanding of the material by teaching others, which helps to increase their own self-concept. Schunk and Hanson (1985) found that capability perceptions bear an important part on a student's future academic success. Faunce (1984) expanded on this idea by stating that others' perceptions of one's learning can positively or negatively effect an individual's self-concept; therefore, students who model topics help to reinforce the self-concept of those they are helping.

Zimmerman (1990) suggested that students' efforts to regulate their learning involve three classes of determinants: their personal processes, the environment, and their behavior. According to Zimmerman, these determinants fluctuate with the given academic context for all students, including the gifted. While gifted students will display a greater self-efficacy in academic settings than regular students, there are procedures that can benefit both types of students. Instructional procedures that help students to become mastery learners include organizing and reviewing notes effectively, seeking peer assistance, and participating in task modeling; these procedures can effectively help increase student self-efficacy. By helping students to become effective mastery learners who believe they are capable of performing an academic task, teachers will increase students' cognitive strategies and their time on task (Pintrich & De Groot, 1990). Teachers can also help students' self-concepts by just encouraging them and congratulating them when they have done something right. Bandura (1986) argued that

because beliefs in part determine expectations, people place more value on things they are capable of and less on those they are not. So formulating and orienting current expectations towards future goals is an important dimension of the education process because these goals help regulate human action, to define acceptable levels of performance, and to promote achievement (Carroll et al., 1997). For students who struggle in school, there is no relationship between learning and their lives, which leads to strengthening of peer ties and other aspects of their life that can devalue educational attainments (Cauce, 1986).² Furthermore, there is evidence that shows student self-perceptions decline from the time they enter school through high school (Zimmerman & Martinez-Pons, 1990). The most significant drop is during middle school because of competitive grading and students' growing sense of their ability as well as others (Zimmerman & Martinez-Pons, 1990). If schools can make changes in the presentation of learning to encompass all types of learning styles and connect topics covered to possible future occupations, students would be more likely to succeed.

Cooperative Learning

One possible change in the classroom environment is for teachers to use cooperative learning. Numerous studies were done in the 1970s and 1980s on cooperative learning (Aronson & Oherow, 1981; Johnson et al., 1978; Slavin, 1980). The studies show that students of both high and low ability participate more in group settings when all participants are given a topic they have to present to the group.³ There has been no support for the notion that, whereas it readily benefits students of the lower ability, high ability students might suffer because of the interdependent nature of cooperative learning (Lucker, Rosenfield, Sikes, & Aronson, 1976). Not all students work well in a

cooperative setting, but this strategy makes them depend upon one another. This interdependence assumes that students work together and share information with each other. The burden of responsibility is higher on students when they are forced to work collaboratively and teach their peers by making thinking a public issue that increases change in students' personal theories of learning and education (Paris & Newman, 1990). Eventually students learn to teach each other and listen to each other (Aronson & Osherow, 1981; Lucker, et al., 1976). Jigsaw learning is just one type of cooperative grouping. For example, if students are asked to "jigsaw" a chapter with their group, each group member may take a subtopic to read and analyze. Upon completion, each student would report the important concepts back to the group. By making students accountable for a smaller portion of the learning, each student has an important part to contribute to the group's success. Grouping may be done by ability, homogeneously or heterogeneously, or in other ways that would benefit presentation of class material. No matter how students are grouped the benefits are the same (Lucker, et al., 1976). As group members become more familiar, they are more likely to become a source of help for each other instead of relying on the teacher for aid (Johnson, Johnson, & Anderson, 1976; Ross, 1995). This behavior also leads to more student modeling of information which can, in turn, increase student efficacy. Cooperative learning has been shown to increase student learning of material as well as the students' beliefs that they are doing a better job than students in an individualized setting (Johnson, et al. 1976; Johnson, et al., 1978; Mizelle et al., 1993).

By being in cooperative grouping, students are able to understand others' individual thought processes and compare these to the group's thought processes. This

comparison will in turn lead to the revision of attitudes about success and failure in regards to learning (Paris & Newman, 1990). It promotes a greater sense of internal locus of control over learning instead of attributing success to luck. Cooperative learning has also been shown to change student perceptions of the nuances of personal relations. Student cooperativeness was positively related to liking teachers who were willing to help. Student attitudes among peers became more positive as they worked together. (Johnson et al., 1976; Johnson et al., 1978). Cooperativeness with others can, in turn, affect how students will perceive themselves. They realize that they are doing a good job and are just as important. By realizing the importance of goals associated with knowledge, study skills, schooling, and maintaining good relationships, the academic “image” is reinforced (Carroll et al., 1997). Considering the benefits for student learning, self-concept, and relations with others, it can be summarized that cooperative groupings are more beneficial for students than traditional classrooms strategies.

Team Concept

Research on cooperative learning has led to the team concept in the middle schools. The team concept is where a group of teachers have the same group of students who rotate among them throughout the day. By sharing the same students teachers can respond more quickly, personally, and consistently to the needs of individual students (Waggoner, 1994). This guarantees that a student will not fall through the cracks of the educational system because a group of teachers can discuss their mutual concerns about a student. Most teams regularly use some type of cooperative learning groups to promote skills needed to working with others. Waggoner (1994) demonstrated the powerful effect teams have on social variables in a student’s life such as increased peer relations, which

include mutual concern and peer support in academic performance. By using the team concept, schools can also reduce students' anxieties about attending high school because they are moving among a set group of teachers. In the workplace these same people skills are needed if a task is to get done. Schools that use the team concept are giving students a valuable tool for their post-academic success.

Some middle schools, such as those in the Delta project (Mizelle et al., 1993), have the same teachers teach the same students for all three years.⁴ The Delta project involved 4 middle school teachers and their students in Elberton, Georgia. The relationships between teachers and students and student motivation to learning were studied over the first two years. The program involved teaching students in integrated teams. Students who have different teachers but are with the same students are called an integrated or interdisciplinary team. Students in the Delta project said they felt almost like a family, that they had gotten to know their classmates very well and had learned how to get along. The one drawback that was discussed by these students was that they did not know the students outside of their program very well. The team concept essentially created a "school within a school" feeling for students. For new students who are enrolled into the school this strategy lessens the feeling of being alone and lost and gave them a sense of community and belonging. The teachers of the Delta project were a good model for the interdisciplinary/integrated approach to learning. Their students learned information not only by being in groups but also through integrated projects. Their projects are designed not only to cover content material but also to improve students' problem solving ability and higher order thinking skills, students' self-concept, and students' abilities to work with others. One of the reasons for this is because each

student had a different perception of what the project was about; therefore, the students encountered a variety of different ideas and points of view. Students had to come together on how to complete a project by listening to each other and taking into consideration each member's strengths. Students liked the variety of projects, which they perceived as interesting, challenging, and relevant. They were motivated to do well and to come to school because they do not know what topics/project would be covered that day.⁵ Given these findings, schools with a traditional approach should try to get students to relate topics they are exposed to other courses in their middle and high school career.

To help students strengthen the bonds of using their class experiences across the curriculum, schools should look at a cooperative curriculum approach that integrates classes instead of having students take courses in a traditional fashion, which leads to "knowledge isolation." An integrative curriculum involves more than combining two or more courses together while still maintaining their individual requirements. Instead, an integrative curriculum dissolves arbitrarily drawn course boundaries so students can identify commonalities in their coursework while still covering the basics required for the courses involved (Beane, 1993). An integrative curriculum expands the idea that genuine learning does not occur in isolation but in experiences that coordinate several concepts as they are done and observed in the real world (Adenika-Morrow, 1995; Beane, 1993; Williams, 1991). To coordinate topics or concepts that are deemed important by the integrated team, themes or projects are created which combine content specific requirements, allowing students to see the interrelatedness of ideas. Students benefit from the integrated classroom because they still cover concepts that would be taught in a traditional classroom but focus those concepts in a project/theme. An integrative program

focuses on “real experiences” instead of contrived, “make believe” education found in the traditional classroom because it expands students’ problem solving ability across all the courses involved (Williams, 1991).

Very few studies have been done on high schools that have an integrative program. Williams (1991) presented a paper on the Unified Studies program, which has been operating for 15 years. The program was designed to integrate the curriculum so that it would address students’ talents, which would be ignored if the student were enrolled in the traditional curriculum. Most teachers hold a view of a student’s capabilities by what they can do in their particular class but like all people, students have different strengths that may not be seen in an ordinary setting. Students were enrolled in science, social studies, fine arts, recreation, and English. The program consisted of juniors and seniors who applied to be part of the program. A cross-section of the high school’s population was chosen from the applicants so they represented all student groups including at risk and Advanced Placement students. This was done so students realized that everyone had something to contribute. Every day in the program was different. There was not a set pattern to individual class presentation of material, and weekly projects and field trips were done so students were able to see the connections between coursework and the outside world. One student, who was interviewed in the study said, “ I personally feel more excitement about learning now. I’m excited to explore things I would have normally never dreamed of exploring before (Williams, 1991, p. 15).” Another student stated, “ Unified has helped me learn more about myself and what I can do. I’ve learned exactly what I am worth. I’ve learned to respect myself and others more (Williams, 1991, p. 16).” This study is an excellent illustration of how high schools with integrated

curriculum can increase students' self-efficacy and show students the relevance of their levels because the courses required at these grades are similar for all students. By looking learning to the outside world. Williams' study of the Unified School supports research at students in the integrated and traditional teaching programs for 9th and 10th grade done by Hayamizu et al. (1989), which found that actual learning behavior is not as situational-specific and abstract as mastery behavior in the traditional classroom.

The Delta and Unified studies present evidence that teaming students not only more actively engages them in their learning but also shows students the relevance of what they are doing. Increased student involvement, along with more positive peer and teacher relations, should encourage high schools to look into an integrated teaching program.

The current study will compare students who are in an integrated teaching program with students who are in a traditional teaching program. This study is unique because it will compare both of these programs in the same high school and for different grade levels. Since the study compares programs that are offered in the same high school, the students will be from the same background. The study will look at the program in different grade levels to see if there is a significant change in students' perceptions of their learning and peer relations at a specific grade level or if there is a gradual increase throughout high school. The current study will compare students in both the integrated and the traditional teaching programs by looking at the students' self-concept towards school and peer relations.

Method

Participants

The high school where the survey instrument was administered contains grades nine through twelve. However, the sample will be taken from only the 9th and 10th grade

levels because the courses required at these grades are similar for all students. By looking at students in the integrated and traditional teaching programs for 9th and 10th grade levels, a cross-sectional study was done in a high school of approximately 2,900 students. Over two days, students take seven 88-minute classes and one homeroom resource period that is also 88 minutes. The homeroom/resource period is designed for students to get help, make up missed work, or use the student support areas (library, writing center to type papers, math resource, etc.) to complete class-work. The high school is the only high school in a suburban and rural school corporation. The school system's population is predominately white, middle-class to upper-class students who, on the average, plan to further their education beyond high school. Approximately 75% gain entrance to an apprenticeship program, two-year community college, or four-year college or university. Students used in the study would be considered the middle fifty percent of the student population.

The students in the integrated condition are in an interdisciplinary program called Integrated Studies. Students in the program all have the same teachers and are scheduled into these classes as if they were in a "smaller school". Once they meet the class requirements for each grade level, students voluntarily sign up for the program. Students can leave or reenter the program as long as they meet the requirements for that grade. The classes in each grade of the program make up their core classes. The remainder of the schedule is filled with electives. At the freshmen level all members of the integrated group take English 9, biology, world geography, basic keyboarding and computer programs, and algebra I or algebra II. At the sophomore level, students in the program take English 10, chemistry, pre-engineering technology lab, and geometry or algebra II.

Students in the traditional coursework are put into the traditional group. The students in the traditional condition for each grade are in the same courses as the integrated condition but they are not with the same teachers or the same group of students. They can take the pre-engineering lab and advanced pre-engineering lab as electives. A stratified sampling procedure was used, such that all the math classes taught in the integrated program, and an equal number of math classes taught in the traditional program were recruited. The number of Algebra I and Algebra II classes were equal for each program. This resulted in five math classes in each condition for the 9th grade, with 112 students in the integrated classes and 130 students in the traditional classes. The 10th grade consisted of one class in each condition, with 23 integrated students and 26 traditional students. Consent forms were mailed to the parents of each student. Students whose parents gave consent were asked to fill out a consent form themselves and take the survey. At the 9th grade level 32 integrated and 26 traditional students were surveyed. At the 10th grade level 6 integrated and 12 traditional students were surveyed. Sample results were collapsed across grade levels because of small sample sizes. The final sample consisted of 38 students at the 9th and 10th grade levels in the integrated condition. At the 9th and 10th grade levels for the traditional condition, 38 students were given the survey. However, one student in the regular condition did not complete the survey so only 37 students were considered in the analysis.

Procedure

Parental and student consent were obtained for students who were selected to participate in the two conditions. Both parents and students were informed that the

students would be completing a survey about their high school education and how it prepares them for the future and their relationship with their peers.

Teachers for the selected courses were instructed by the author on questionnaire administration and materials were packaged in manila envelopes with identification codes to ensure respondents' anonymity. Surveys were administered near the end of the second semester to both grades. The surveys were completed during normal class time. The students were not compensated for completing the survey.

Instrument

The survey instrument used to measure student attitudes in the proposed study was the Self-Description Questionnaire-II (SDQ-II; Marsh, 1988). The SDQ-II contains 102 items to measure self-concept in adolescents using 11 subscales. This survey has been used to measure a wide range of behaviors and is designed to measure self-concept in high school students. The subscale percentile scores range from 0 to 100 with a mean score of 50 and a standard deviation of 10. The SDQ-II survey is broken down into three areas of academic self-concept (Reading, Mathematics, and General School) and four areas of nonacademic self-concept (Physical Abilities, Physical Appearance, Peer Relations, and Parent Relations). In addition to these seven areas, the survey also measures emotional stability and honesty-trustworthiness and a general self-scale. The final measure is the peer relations scale. This subscale is divided into same sex and opposite-sex relations scales.

The SDQ-II survey instrument allowed for data to be collected on how students feel about their education and their relationships with their peers that have been shown to be enhanced through integrated/team teaching programs. From the 11 subscales, the

current study used only the six subscales that pertain to academic, general school, and peer relations. The current study would like to show that there is an increase in peer relations and academic relevance in the integrated program. These concepts have been validated in the Self-Description Questionnaire (SDQ-II; Marsh, 1988).

Results

A 2 (course) x 2 (gender) MANOVA on the six dependent variables (math, verbal, general school, general self, same-sex relationships, and opposite-sex relationships) was conducted to understand whether students in the two programs had different perceptions of their relationships with their peers and their self-concept towards academics. There was no difference found in how students in the two programs perceived their relationships with their peers or in their self-concept towards academics (see Table 1). However, a main effect, gender, was found to be significant, $F(6,66) = 1.896, p < .05$. Three of the dependent variables were found to be significant, verbal, $F(1, 71) = 3.97, p = .05$, general school, $F(1, 71) = 5.71, p < .05$, and same-sex relationships, $F(1,71) = 13.53, p < .01$. On the verbal scale, girls perceived their ability to be higher than boys (see Table 1). These results show that girls are more confident in their reading and writing abilities than boys. As shown in Table 1, girls' perceptions of their general school ability were higher than boys. For girls, having a higher general school self-concept may be influenced by their higher perceptions of their verbal ability. The peer relationship scale of same-sex relationships also showed that girls perceived their relationships to be better than boys (see Table 2). Females at the freshman and sophomore levels perceive their relationships with other females to be stronger than males' relationships with other

males. These results suggest that there is a difference between the self-concept of males and females in early adolescence.

Discussion

The primary purpose of this study was to look at the integrated and regular course programs in different grade levels to see if there is a significant change in students' perceptions of their learning and peer relationships. The findings show there is not a significant difference in the type of program students are enrolled in and their perception of their academic ability and peer relationships. Students in both the integrated program and the traditional program perceive their relationships with their peers to be positive. There is no difference in the students' self-concepts in regards to their academic ability. Being in the integrated or traditional academic program does not influence how the students feel about their math, verbal, or general school performance. This contradicts previous research, which found that an integrated curriculum can increase a student's self-concept and provide relevance to the courses taken to a student's future (Beane, 1993; Williams, 1991). By having students work together towards a common goal, students perceived their peer relationships were stronger and everyone had a particular strength that was beneficial to the group's goal (Johnson et al., 1976; Johnson et al., 1978). The lack of a difference between the two programs may be due to only freshman and sophomores being studied. Students in these grades may not be focusing on their future in any specific mental framework so they would not be able to perceive the benefits of their curriculum path over others that are offered at their high school. However, the findings revealed that there is a gender difference in the self-concepts of adolescents. Females perceive their academic and peer relationships

differently than males. Girls have stronger English (verbal) self-concepts than boys. Girls also have stronger perception in terms of their overall school ability than boys.

These findings are supported by the literature done on self-concept and school performance (Byrne & Shavelson, 1987; Hay, 2000). Previous research has found that females tend to perceive themselves as doing well in English but not in the area of mathematics (Byrne & Shavelson, 1987; Hay, 2000). Byrne & Shavelson (1987) state:

...that it seems apparent that despite changing societal norms that de-emphasize specific sex-role behaviors, sociocultural factors communicated through expectations and reinforcements of significant others may still influence perceptions of academic ability for high school students. The strength of these sociocultural factors is demonstrated in mathematical grades, boy still maintain a higher level of self-perceived success in that subject area than girls (p. 381).

This study also supports the research done by Byrne and Shavelson (1987) that found that females had higher general school self-concepts than males. Because overall grades, instead of specific class tests or standardized tests that are given yearly, are more salient when thinking of school ability as a whole it would be logical that females to have a stronger self-concept than males (Byrne and Shavelson, 1987). Overall grades in a class have to do more with day-to-day work ability, homework, and organization, which are activities that girls at this age tend to be better at than males at this age. By high school, girls have developed a sound framework of work ability and organization that helps them to be able to perform all of the continual requirements of a course without the negative feedback. Males tend to get penalized for lack of organization that affects the grades they

older adolescents and this behavior may affect how adolescents perceive their

earn. This negative feedback that males receive affects their self-concept towards school in general (Hay, 2000).

The most significant result found by the current study was that females have stronger self-concepts than males in regards to same-sex relationships. This finding supports other research done on male and female self-concept differences using the same research-measuring instrument. Hay (2000), using the SDQ-II also, found males and females perceived their overall self-concept differently because they did not have high self-concepts in the same subscales. Parker and de Vries (1993) state that there are a “number of obstacles to men’s ability to be emotionally intimate with others and these seem to be particularly salient in men’s same-sex relationships that are consistently characterized by lower scores on a host of expressive measures (p. 623)”.

This is generally support by cultural dynamics of same-sex relationships. Females tend to be more emotionally attached in same-sex relationships because of the primary foundation of these relationships. Research suggests that females tend to have richer friendships because of shared feelings and they gain intimacy by spending time together and through discussion (Parker & de Vries, 1993). However, males tend to establish their relationships through shared activities (McNelles and Connolly, 1999). Parker & de Vries (1993) describes the differences between females and males as face to face versus side by side. Males tend to be oriented with their friends in an outside activity instead of through shared feelings. The findings of this study strongly support this link between female and male relationships. Females reported that their same-sex relationships were stronger. It is often assumed younger adolescents tend to be more group oriented than older adolescents and this behavior may affect how adolescents perceive their

relationships. It is also assumed that females tend to mature faster than males and this could affect their ability to establish the emotional framework necessary for a rewarding friendship. This theory can be supported by McNelles and Connolly (1999), who found that intimate discussions and disclosures increased over these mid-adolescent years. This finding supports the idea that females would have higher self-concepts about their peer relationships because they have established the framework for “give and take” disclosures needed in strong relationships.

The established framework that females have to support their peer relationships may also help in their verbal and general school self-concepts. By having an established “give and take” framework, females may feel better in their ability to have discussions in class and be able to interpret feedback given from teachers. The current findings, however, do not show any difference between the type of course program the females took. Therefore, the general school self-concept of females did not depend on how the courses were taught in the integrated and traditional programs. Females in both conditions may have a strong ability to interpret feedback, which is important in doing well in school, which maybe is why no difference was found.

Some limitations to this study should be noted. Although it is believed that the sample is representative of adolescents in both of the programs studied, it is important to note that the sample size is small. It is unclear that if a larger sample across all grade levels were to be used that the same results would be found. Another limitation to this study was due to the fact that only one survey instrument could be given to analyze academic and peer self-concepts, due to constraints imposed by the school administration. It is believed the SDQ-II was a good measurement instrument to analyze

same sex and opposite sex peer relationships. However, there are three levels of the Self-Description Questionnaire designed for different age groups. The SDQ-III (designed for upper high school grades and college level) may have been a better measure for the academic subscales used even though the SDQ-II was designed for grades seven through eleven. The subjects who participated were within the grade levels specified for the SDQ-II, but the questions asked may have seemed too young for the high school participants (see Figure 1). The questions may not have been appropriate based on the fact that students attend classes taught in the block format, which has more in common with the college setting than the middle school environment. It is believed that if the SDQ-III were used in its entirety or in combination with the SDQ-II, a better appraisal of the academic and peer self-concepts in the two groups studied would have been measured.

If more than one instrument could have been used, a survey dealing with technology and self-concept would have been given. This may have found some interesting differences between the two academic programs because the integrated group tries to incorporate different types of technology when teaching across the courses. Further research into educational programs and a student's self-concept can be obtained by interviewing some of the participants again a year after completing high school. This could be beneficial because most adolescents do not perceive the benefits of a particular academic program until they use it in their future educational path or when they enter the workforce. Nurmi (1991) found that in adolescents, the levels of planning, realization, and knowledge concerning their future increases with age due to the nature of a student's contextual environment. Typically, adolescents do not realize the impact that high school courses have on their future studies or interests until they apply them in their current

activities. Research that incorporates technology into the academic self-concept could further the study of the different types of curriculum programs currently taught in high schools and the changes perceived by the students upon their completion of these courses in regards to their future ability. Future research can be done to see if students with strong academic self-concepts also have strong technology backgrounds.

In summary, this research did not show a difference between two types of academic programs taught in the ninth and tenth grades of high school. However, the research furthers our understanding into the different factors of the adolescent self-concept. The current research shows that females perceive themselves as performing well in verbally based courses and in school in general. It also supports our understanding that females tend to perceive their same sex relationships as strong and more intimate. This belief would reinforce a person's self-concept in regards to their peer relationships.

The current research has shown that females do have strong self-concepts when dealing with their peers. By looking at the intimacy females have in their peer relationships, research may be able to identify certain parameters needed to establish intimate relationships. This relationship framework can be used to help troubled youths in group counseling, male or female, to establish the emotional links necessary to be able to feel better about their relationships with their peers.

Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology, 28*, 399-410.

References

- Adenika-Morrow, T. J. (1995). The TEAM program: teaching teachers to utilize an interdisciplinary approach to science for urban students (Report No. SP-036-274). (ERIC Document Reproduction Service No. ED 388 629).
- Alsaker, F. D. (1989). School achievement, perceived academic competence, and global self-esteem, School Psychology International, 10, 147-158.
- Aronson, E., & Osherow, N. (1981). Cooperative, prosocial behavior, and academic performance: experiments in the desegregated classroom. Leonard Bickman (Vol. Ed.), Applied Social Personality Annual: Vol 1 (pp. 163-196). Beverly Hills, London: Sage Publications.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37, 122-147.
- Bandura, A. (1986). Social Foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.
- Beane, J. A., (1993). Problems and possibilities for an integrative curriculum. Middle School Journal, 25, 18-23.
- Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. Journal of Counseling Psychology, 28 , 399-410.

Bickel, R. & Chang, M. (1986). Public schools, private schools, and high school achievement: A review and response with college board achievement test data, The High School Journal, 69, 91-105.

Byrne, B. M., & Shavelson, R. J. (1987). Adolescent self-concept: Testing the assumption of equivalent structure across gender. American Educational Research Journal, 24, 365-385.

Carroll, A., Durkin, K., Hattie, J., & Houghton, S. (1997). Goal setting among adolescents: A comparison of delinquent, at-risk, and not-at-risk youth, Journal of Educational Psychology, 89, 441-450.

Cauce, A. (1986). Social networks and social competence: Exploring the effects of early adolescent friendships, American Journal of Community Psychology, 14, 607-628.

Faunce, W. A. (1984). School achievement, social status, and self-esteem, Social Psychology Quarterly, 47, 3-14.

Hackett, G., & Betz, N. E. (1981). A self-efficacy approach to the career development of women. Journal of Vocational Behavior, 18, 326-339.

Hayamizo, T., Ito, A., & Yoshizaki, K. (1989). Cognitive motivational processes mediated by achievement goal tendencies, Japanese Psychological Research, 31, 179-189.

Hay, I. (2000). Gender self-concept profiles of adolescents suspended from high school. Journal of child psychology and psychiatry and allied disciplines, 41, 345-352.

Johnson, D. W., & Ahlgren, A. (1976). Relationship between student attitudes about cooperation and competition and attitudes toward schooling. Journal of Educational Psychology, 68, 92-102.

Johnson, D. W., Johnson, R. T., & Anderson, D. (1978). Student cooperative, competitive, and individualistic attitudes, and attitudes toward schooling. The Journal of Psychology, 100, 183–199.

Johnson, D. W., Johnson, R. T., Johnson, J., & Anderson, D. (1976). Effects of cooperative versus individualized instruction on student prosocial behavior, attitudes toward learning, and achievement. Journal of Educational Psychology, 68, 446–452.

Johnson, D. W., Johnson, R. T., & Scott, L. (1978). The effects of cooperative and individualized instruction on student attitudes and achievement. The Journal of Social Psychology, 104, 207–216.

Keiltikangas-Jarvinen, L. (1992). Self-esteem as a predictor of future school achievement, European Journal of Psychology of Education, 12, 123-130.

Lent, R. W., Brown, S. D., & Larkin, K. C. (1984). Relation of self-efficacy expectations to academic achievement and persistence. Journal of Counseling Psychology, 31, 356-362.

Lucker, G. W., Rosenfield, D., Sikes, J., & Aronson, E. (1976) . Performance in the interdependent classroom: A field study. American Educational Research Journal, 13, 115–123.

Marsh, H. W. (1986). Verbal and math self-concepts: An internal external frame of reference model. American Research Journal, 23, 129-149.

Marsh, H. W. (1988). Self-Description Questionnaire - I: Manual and research monograph. San Antonio, TX: The Psychological Corporation.

Richman, C. L., Clark, M. L., & Brown, K. P. (1985). General and specific self-esteem in late adolescent students: Race x gender x SES effects, Adolescence, 20, 555-566.

Marsh, H. W. (1990). Influences of internal and external frames of reference on the formation of math and English self-concepts, Journal of Educational Psychology, 82, 107-116.

Mizelle, N. B., Et Al (1993). Classroom structures and student motivation: A study of the Delta project . (Report No. TM-020-016) Atlanta, GA: Paper presented at the Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. ED359 247).

McNelles, L. R., & Connolly, J. A. (1999). Intimacy between adolescent friends: Age and gender differences in intimate affect and intimate behaviors. Journal of Research on Adolescence, 9, 143-159.

Nurmi, J. E. (1991). How do adolescent see their future? A review of the development of future orientation and planning. Developmental Review, 11, 1-59.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. Review of Educational Research, 66, 543-578.

Paris, S. G., & Newman, R. S. (1990). Developmental aspects of self-regulated learning. Educational Psychology, 25, 87-102.

Parker, S., & de Vries, B. (1993). Patterns of friendship for women and men in same and cross-sex relationships. Journal of Social and Personal Relationships, 10, 617-626.

Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. Journal of Educational Psychology, 82, 33-40.

Richman, C. L., Clark, M. L., & Brown, K. P. (1985). General and specific self-esteem in late adolescent students: Race x gender x SES effects, Adolescence, 20, 555-566.

Ross, J. A. (1995). Effects of feedback on student behavior in cooperative learning groups in a grade 7 math class. The Elementary School Journal, 96, 125–143.

Schunk, D. H. (1981). Modeling and attributional effects on children's achievement: A self-efficacy analysis. Journal of Educational Psychology, 73, 93–105.

Schunk, D. H., & Hanson, A. R. (1985). Peer models: Influence on children's self-efficacy and achievement. Journal of Educational Psychology, 77, 313–322.

Shade, B. J. (1983). Cognitive strategies as determinants of school achievement, Psychology in the Schools, 30, 488–493.

Sizer, T.R. (1985). Horace's Compromise: The Dilemma of the American High School. Boston: Houghton, Mifflin.

Slavin, R. (1980). Cooperative learning. Review of Educational Research, 50, 315–342.

Slavin, R. (1978). Student teams and comparison among equals: effects on academic performance and student attitudes. Journal of Education Psychology, 70, 532–538.

Waggoner, J. E. (1994). The relationship between instructional teaming and self-esteem of sixth graders transitioning to traditional junior high. (Report No. SP-035-811). Lisle, IL: Presented at a Meeting of the Illinois Association of Teacher Educators. (ERIC Document Reproduction Service No. ED 379 278).

Walberg, H. J. , & Anderson, G. J. (1968) . Classroom and individual learning. Journal of Educational Psychology, 59, 414–419.

Williams, D. D. (1991). A naturalistic study of Unified studies: A holistic high school program. (Report No. EA-023-053). Chicago, IL: Presented at the Annual Meeting of

the American Educational Research Association . (ERIC Document Reproduction Service No. ED 333 552).

Webb, C. D. (1989). Summary of a talk by TedSizer. Unpublished memorandum.

Zimmerman, B. J., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: relating grade, sex, and giftedness to self-efficacy and strategy use. Journal of Educational Psychology, 82, 51-59.

Dependent Variables	Regular (n=37)			Integrated (n=38)		
	F	M	SD	M	SD	
Math	1.389	49.22	8.60	51.74	11.74	
General Self	0.024	50.97	8.84	50.26	9.55	
Verbal	0.043	53.11	9.81	53.24	11.29	
General School	0.418	52.03	9.35	53.00	9.03	
Same-Sex Relationships	0.022	53.43	8.74	53.16	11.66	
Opposite-Sex Relationship	0.185	52.57	8.96	52.84	8.57	

Table 1

Results for integrated and traditional courses for the SDQ-II subscales

Dependent Variables	<u>F</u>	Regular (n=37)		Integrated (n=38)	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Math	1.389	49.22	8.60	51.74	11.74
General Self	0.024	50.97	8.84	50.26	9.55
Verbal	0.043	53.11	9.81	53.24	11.29
General School	0.418	52.03	9.35	53.00	9.03
Same-Sex Relationships	0.022	53.43	8.74	53.16	11.66
Opposite-Sex Relationship	0.185	52.57	8.96	52.84	8.57

Figure 1 Table 2

Sample Mean scores for males and females for the SDQ-II subscales

Dependent Variables	<u>F</u>	Males (n=39)			Female (n=36)	
		<u>M</u>	<u>SD</u>		<u>M</u>	<u>SD</u>
Math	0.712	49.62	10.70		51.44	10.01
General Self	3.329	48.77	9.50		52.61	8.43
Verbal	3.974	50.87	10.84		55.67	9.69
General School	5.708	50.18	9.06		55.06	8.65
Same-Sex Relationships	13.532	49.38	11.53		57.53	6.53
Opposite-Sex Relationships	1.513	51.69	8.91		54.08	8.13

Figure 1

Sample questions taken from the SDQ-II survey:

	false	mostly false	more false than true	more true than false	mostly true	true
I do badly on tests that need a lot of reading ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am not very good at reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't have very much to be proud of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I make friends easily with girls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not get along very well with boys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

source: Self-Description Questionnaire II used by permission

Footnotes

¹ This is very frustrating to teachers of courses that share similar course requirements and expectations of student knowledge. A teacher of mathematics/science courses and English/social studies course readily come to mind from my own teaching experience.

² These students can be seen biding their time in high school until they can drop out, get expelled, or do just enough to get by. For them, the current educational system is ignoring their needs. Perhaps through academic programs which can show the correlation between courses and acquiring rudimentary job skills, students will feel their time in school is worthwhile. Students will know their coursework does help them prepare for the workplace. This is important because latest statistics report only 40% of enrolling freshmen actually graduate from college. This should lead educators to wonder how they can best help the other 60% even if they are not furthering their education. I think this will also decrease the discipline problems because most are due to students being bored because they are doing nothing.

³ This technique is when students are placed into groups to jigsaw information.

⁴ Most contain grades 6th through 8th.

⁵ This should be a goal of education. Students should feel motivated to come to school by something, not just feel forced to be there.

Vita

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EDUCATION

- 1987 - 1991 Indiana University Bloomington, In
Bachelor of Science in Education
- Major: Mathematics
 - Minor: Psychology
- 1997 - 2001 Indiana University South Bend, In
Master of Arts in Psychology
- Major: Applied Psychology (inducted August 2001)

PROFESSIONAL EXPERIENCE

- 1990 - 1999 South Bend Parks & Recreation Dept. South Bend, In
Aquatics Supervisor
- In charge of staff at outdoor pools. learn to swim programs and the East Race waterway.
 - Duties included: hire subs for when employees are not at work, hire summer aquatic staff, payroll for all summer employees, budget for the aquatic program, order inventory and equipment for each aquatic site, monitoring each site on a daily basis, evaluate employee performance
 - East Race duties also included filling out paperwork required for private corporation rental nights, filling staff positions for the rental night and being the liaison between the recreation department and the corporation during the time of the rental
- 1991 - 1992 South Bend School Corporation South Bend, In
High school mathematics teacher
- Taught all levels of freshman mathematics: general math, basic algebra I, regular algebra I, honors algebra I
- 1992 - current Penn Harris Madison School Corporation Mishawaka, In
High school mathematics teacher
- Taught basic algebra I, regular geometry, all levels of algebra II (regular, accelerated, honors), pre-calculus honors, advanced placement statistics
 - Taught in the traditional and team concept formats that incorporate technology into the standard curriculum
 - Designed and implemented curriculum for the advanced placement statistics program. Course incorporates Excel and SPSS computer software programs in addition to daily graphing calculator analysis.

ADDITIONAL PROFESSIONAL ACTIVITIES

- Certificate of achievement for completing a cooperative learning program
- Certificate of achievement for completing a cooperative discipline program
- Certificate of achievement and three hours of graduate credit achieved for completing the teacher expectations, student achievement program
- On committee for three years that organized the East Race golf classic
- On committee for five years that organized a summer fun day for Saint Joseph special olympians

PROFESSIONAL MEMBERSHIPS

Psi Chi National Honor Society (inducted August 2001)

RESEARCH EXPERIENCE:

Master's Thesis: Traditional vs. Integrated Classrooms: Which is Better?.
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